# Sacramento Stormwater Quality Improvement Plan November 2009

# **Executive Summary**

### Introduction

Sacramento County and the cities of Sacramento, Citrus Heights, Elk Grove, Folsom, Galt and Rancho Cordova, collectively known as the Sacramento Stormwater Quality Partnership (Partnership), prepared the Stormwater Quality Improvement Plan (SQIP) in compliance with their shared municipal stormwater permit. The SQIP describes activities for the fourth permit term (2008-2013) intended to reduce the discharge of pollutants to the municipal separate storm sewer system (MS4 or storm drain system) and local receiving waters to the "maximum extent practicable", and in doing so, protect water quality and watershed health and satisfy State and Federal regulations.

The SQIP is a comprehensive plan that describes the Partnership's stormwater management program. It outlines tasks that will be conducted to satisfy Stormwater Permit provisions; program milestones and schedules; and methods for assessing program effectiveness to identify areas for improvement and demonstrate progress towards meeting program goals. In many cases, however, it is difficult to determine implementation details years in advance because so many variables are involved. For that reason, a greater level of detail is included in annual work plans and annual reports that the permittees submit to the Regional Water Board by May 1 and October 1 of each year, respectively. Annual work plans provide information on the proposed activities for the upcoming fiscal year (July 1 to June 30), while annual reports describe activities implemented in the previous fiscal year and effectiveness assessments of those activities. Annual reports may also propose modifications to the SQIP.

As specified in the Stormwater Permit, once the SQIP is approved by the Regional Water Board Executive Officer (anticipated early 2010) it is considered part of the Stormwater Permit and is enforceable as such.

#### Stormwater Permit Area

The Stormwater Permit does not apply to all areas within Sacramento County. Rather, it applies to all the land inside the County's Urban Service Area boundary, as well as the City of Galt to the south and the Sacramento International Airport to the north. Land within the Urban Service Area includes the cities of Sacramento, Citrus Heights, Elk Grove, Folsom, and Rancho Cordova, and urbanized parts of unincorporated Sacramento County. Pockets of urbanized land in Sacramento County, to which the Stormwater

<sup>&</sup>lt;sup>1</sup> The County of Sacramento and the cities of Sacramento, Citrus Heights, Elk Grove, Folsom, Galt and Rancho Cordova (permittees) are subject to the Sacramento Areawide NPDES Municipal Stormwater Permit (NPDES No. CAS082597; Order NO. R5-2008-0142) (Stormwater Permit), issued by the Regional Water Quality Control Board (Regional Water Board) in September 2008 and covering the period November 2008 –September 2013.

Permit does not apply, include Isleton (very small community not subject to NPDES regulations) and Rancho Murieta (covered by a separate Phase II NPDES permit).

The storm drain system within the Stormwater Permit Area includes a constructed system of storm drain inlets, pipelines, open channels, roadside ditches, detention basins, and roadside ditches that discharge – for the most part – into various local creeks and into the American and Sacramento Rivers. For the City of Galt, most stormwater runoff travels to the Cosumnes River. All the aforementioned rivers eventually flow into the Sacramento-San Joaquin Delta and from there to the San Francisco Bay and the Pacific Ocean.

The County and cities have established stormwater ordinances to prohibit actual and threatened pollutant discharges to their storm drain systems, but the permittees lack jurisdictional authority over some facilities and activities within the Stormwater Permit Area. For example, facilities owned and/or operated by the federal and state government; special districts such as school, park, fire, water, sewerage, irrigation, flood control and reclamation; private utility companies; and regional transportation authorities.

# **SQIP Goals**

The overall goals of the SQIP, as identified in the Stormwater Permit are to: a) reduce the degradation of Waters of the State and Waters of the United States by urban runoff and protect their beneficial uses<sup>2</sup>; and b) develop and implement an effective SQIP that is well understood and broadly supported by regional stakeholders. The core objectives of the SQIP are to:

- Identify and control those pollutants in urban runoff that pose significant threats
- to the waters of the State and waters of the U.S. and their beneficial uses;
- Comply with the federal regulations to eliminate or control, to the MEP, the
- discharge of pollutants from urban runoff associated with the storm drain system;
- Achieve compliance with water quality standards<sup>3</sup>:
- Develop a cost-effective program which focuses on preventing pollution of urban
- stormwater;
- Seek cost-effective alternative solutions where prevention is not a practical
- solution for a significant problem; and
- Coordinate implementation of control measures with other agencies.

This SQIP outlines the strategies that will be utilized by the Partnership to meet these objectives.

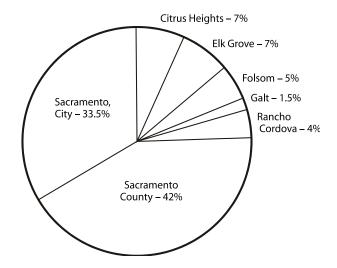
<sup>&</sup>lt;sup>2</sup> The Regional Water Board developed the *Water Quality Control Plan, Fourth Edition, for the Sacramento and San Joaquin River Basins (Basin Plan)* which designates **beneficial uses**, establishes water quality objectives, and contains implementation programs and policies to achieve water quality objectives for all receiving waters of the Basin. **Beneficial Uses** are the numerous existing or potential uses of receiving waters; examples of which include municipal and domestic water supply, water contact recreation, fishing, and wildlife habitat.

<sup>&</sup>lt;sup>3</sup> Water Quality Standards and Water Quality Objectives are water quality criteria contained in the Basin Plan, the National Toxics Rule, the California Toxics Rule, and other state or federally approved surface water quality plans. Such plans are used by the Regional Water Board to regulate all discharges, including stormwater discharges.

# **SQIP Components**

The SQIP describes two levels of actions, those conducted collectively by all the permittees (Partnership or regional activities) and those conducted individually by each agency (permitteespecific or individual activities).

Partnership (regional) activities are implemented by the permittees according to a memorandum of understanding that defines roles, responsibilities and costshare arrangements for those activities. Conducting projects that provide regional benefits in this collaborative fashion is more cost effective and helps ensure a consistent approach to urban runoff management and pollution prevention in the



**Permittee Share of Regional Costs** 

Stormwater Permit Area. Typically, either Sacramento County or the City of Sacramento (the two largest permittees), takes the lead in implementing regional activities on behalf of the other permittees.

Regional activities are presented in Chapter 2 of the SQIP in the following sections:

- Program Management
- Program Effectiveness
- Monitoring Program
- Target Pollution Program
- Regional Public Outreach Program
- Regional Commercial/Industrial Program

Table ES-1at the end of this Executive Summary provides a brief synopsis of each section, including examples of activities in each.

**Permittee-specific activities** are conducted by each permittee within its own jurisdiction and described in the permittee-specific SQIPs in Chapters 3-9. Each Permittee is individually responsible for adopting and enforcing local ordinances and implementing activities to reduce pollutant discharges to its storm drain system to the maximum extent practicable, and for providing funds for the necessary capital, operation, and maintenance expenditures to achieve this.

These activities may differ from one agency to another according to each agency's internal structure, resources, priorities and goals. However, the permittees strive for areawide consistency by coordinating through their steering committee, sharing information and partnering whenever possible.

Permittee-specific activities are organized into seven program elements in the SQIP, as follows:

- Program Management
- Construction
- Commercial/Industrial
- Municipal Operations
- Illicit Discharge
- Public Outreach
- New Development

Table ES-1 at the end of this summary provides a brief synopsis of each program element, including examples of activities in each.

## **Assessing Program Effectiveness**

The Partnership will assess program effectiveness throughout the permit term as required by the Stormwater Permit in order to:

- Demonstrate Stormwater Permit compliance
- Track the long-term progress of the SQIP toward achieving improvements in water quality of local creeks and rivers
- Provide the data and feedback necessary to improve the SQIP through the identification of new activities or the modification of existing activities

Annually, the Partnership will use the assessment methods described in the SQIP to evaluate the overall program, the regional activities, and the permittee-specific activities and report the results in the annual reports. Once during the fourth permit term, the Partnership will conduct a long-term effectiveness assessment (LTEA) that will be submitted to the Regional Water Board with the Report of Waste Discharge/Stormwater Permit renewal application in March 2013. The Partnership will use the annual assessments and the LTEA as part of the iterative process to continually improve its program, whereby actions are planned, implemented, assessed and refined in repeated cycles until a certain accomplishment or goal is achieved. This process of continuous improvement helps ensure an effective use of public funds.

The Partnership's effectiveness assessment approach described in the SQIP is consistent with the California Stormwater Quality Association's *Municipal Stormwater Program Effectiveness Assessment Guidance* manual (CASQA, 2007).

Table ES-1 SQIP Components and Representative Activities

Program Element	Objective	Examples of Partnership (Regional) Activities	Examples of Permittee-Specific Activities
Program Management	Manage implementation of activities and foster intra and inter-agency collaboration to ensure cost-effective compliance with the Stormwater Permit	<ul> <li>Collaborate and provide direction for the regional program</li> <li>Utilize a memorandum of understanding that defines roles, responsibilities and allocation of shared costs for Partnership activities</li> </ul>	<ul> <li>Ensure adequate funding for regional program tasks according to each agency's defined cost share</li> <li>Adopt, maintain and enforce legal authority to implement program</li> <li>Adopt intra-agency agreements to ensure agencywide permit compliance</li> </ul>
Program Effectiveness	Demonstrate Stormwater Permit compliance, track progress towards water quality improvement, and provide data for continuous improvement	<ul> <li>Develop metrics and goals for Partnership activities</li> <li>Demonstrate effectiveness of Partnership activities in the Annual Reports</li> <li>Demonstrate overall program effectiveness using activity metrics and long-term effectiveness assessments</li> <li>Adjust regional activities as needed to advance program effectiveness</li> </ul>	<ul> <li>Develop metrics and goals for permittee-specific activities</li> <li>Demonstrate effectiveness of permittee-specific activities in the Annual Reports</li> </ul>
Monitoring	Measure water quality in urban runoff, creeks and rivers; identify pollutants and their sources; investigate/solve reported problems; evaluate effectiveness of selected BMPs and the overall program	Conduct creek, river and urban runoff discharge monitoring Coordinate monitoring efforts with other agencies to share costs and information Conduct special studies of selected best management practices (BMPs) to assess effectiveness Use monitoring data to demonstrate effectiveness of overall program and to determine future activities	Conduct additional monitoring as desired related to permittee-specific operations
Target Pollutant	Identify and prioritize target pollutants and associated control strategies as a means to use Partnership resources most efficiently	<ul> <li>Track pesticide regulation and engage in discussion about approval process for pesticides</li> <li>Participate in methyl mercury TMDL process</li> <li>Implement Mercury Plan</li> <li>Implement Pesticide Plan</li> </ul>	<ul> <li>Develop and implement permittee-specific integrated pest management program</li> <li>Work with other agencies to develop and promote appropriate disposal options for fluorescent light bulbs</li> <li>Implement pet waste disposal program</li> </ul>

Program Element	Objective	Examples of Partnership (Regional) Activities	Examples of Permittee-Specific Activities
Public Outreach	Educate the public on the impacts of stormwater and urban runoff pollution and encourage stewardship to protect local creeks and rivers	<ul> <li>Distribute brochures and other educational materials in local communities</li> <li>Conduct public opinion surveys</li> <li>Conduct mixed media campaigns focusing on specific messages</li> <li>Conduct outreach to schools</li> <li>Maintain partnership website</li> <li>Establish and maintain partnerships with groups and agencies to further public outreach mission</li> </ul>	<ul> <li>Sponsor stormwater booths at local community events</li> <li>Install signs discouraging illegal dumping</li> <li>Support environmental and water-based educational programs to increase awareness of pollution prevention, water conservation and watershed issues.</li> </ul>
Commercial/ Industrial	Reduce the discharge of stormwater pollutants to the maximum extent practicable (MEP) and effectively eliminate illegal non-stormwater discharges from commercial and industrial facilities	<ul> <li>Identify priority industries subject to inspection and outreach</li> <li>Inspect priority industries</li> <li>Develop brochures and BMP guidance materials for industries and businesses</li> <li>Conduct outreach to priority industries</li> </ul>	<ul> <li>Complaint-based investigation and enforcement of illicit discharges from Commercial/Industrial facilities</li> <li>Development and distribution of outreach to local businesses</li> <li>Coordination with public agencies and special districts</li> </ul>
Construction	Prevent sediment and other construction-related pollutants from entering the storm drain system and local waterways	<ul> <li>Continue multi-agency coordination related to erosion and sediment control specifications and standards to ensure area-wide consistency as much as possible</li> <li>Co-sponsor training workshops for construction community</li> </ul>	<ul> <li>Update and enforce ordinances for erosion and sediment control</li> <li>Inspect construction sites to ensure compliance</li> <li>Train and provide ongoing education for public agency inspectors, plan reviewers, and project managers</li> <li>Coordinate with Regional Water Board regarding local construction projects</li> </ul>
Municipal Operations	Control potential stormwater pollutants generated by agency- owned facilities and set an example of model pollution prevention to the public		<ul> <li>Maintain inventory of agency-owned facilities</li> <li>Conduct annual refresher training for targeted agency staff</li> <li>Provide technical assistance</li> <li>Evaluate permit compliance of facility conditions and field activities</li> </ul>
Illicit Discharge	Reduce the discharge of stormwater pollutants to the MEP and effectively eliminate illicit non- stormwater discharges from non-commercial sources	<ul> <li>Maintain public hotline for reporting of illicit discharges and connections</li> <li>Conduct outreach to public by distributing educational materials</li> <li>Conduct regional coordination as needed to respond to releases and illegal discharges</li> </ul>	<ul> <li>Complaint-based investigation and enforcement of illicit discharges</li> <li>Respond to, contain and cleanup/abate illicit discharges and connections</li> <li>Conduct ongoing field screening for illicit connections through routine maintenance activities being conducted by field crews</li> <li>Conduct annual refresher training for affected agency staff</li> </ul>

Program Element	Objective	Examples of Partnership (Regional) Activities	Examples of Permittee-Specific Activities
New Development	Mitigate urban runoff pollution and other stormwater impacts associated with new development and redevelopment	<ul> <li>Prepare and update technical guidance manuals</li> <li>Educate and provide technical guidance to the development community, including presentations and workshops to local professional organizations</li> <li>Investigate new and innovative treatment control measures as needed.</li> </ul>	<ul> <li>Review and evaluate existing development standards, General Plan and CEQA procedures</li> <li>Establish and enforce development standards and requirements for on-site and regional stormwater quality control measures</li> <li>Conduct training and provide ongoing education for public agency staff, such as planners and engineers</li> </ul>

